

Yersiniosis

What is yersiniosis?

Yersiniosis is an infectious disease caused by a bacterium of the genus *Yersinia*. There are three different species of *Yersinia* that can cause illness in humans. These are *Y. pestis*, which causes plague, and *Y. enterocolitica* and *Y. pseudotuberculosis*, both of which cause gastrointestinal illness. This Fact Sheet provides information on *Y. enterocolitica* and *Y. pseudotuberculosis*.

Where are *Yersinia* found?

Yersinia infections are zoonotic diseases. As zoonotic diseases, *Yersinia* species infect many animals but only occasionally infect humans. The major animals carrying the *Y. enterocolitica* strains that cause human illness are pigs, but *Y. enterocolitica* and *Y. pseudotuberculosis* strains are found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs, and cats. Usually the animals carrying the *Yersinia* are not sick, so we do not know they are carrying the bacterium.

Who gets yersiniosis?

Anyone can get yersiniosis, but it is recognized more often in infants and children than in adults.

How do people become infected with *Yersinia* bacteria?

- By eating contaminated food, especially raw or undercooked pork products. The preparation of raw pork intestines (chitterlings) may be particularly risky.
- Infants can be infected if their caretakers handle raw chitterlings and then do not adequately clean their hands before handling the infant or the infant's toys, bottles, or pacifiers.
- By drinking contaminated unpasteurized milk or untreated water.
- By contact with infected animals.
- As a result of the bacterium passing from the stools or soiled fingers of one person to the mouth of another person. This may happen when basic hygiene and handwashing habits are inadequate.
- Through contaminated blood during a transfusion. This is extremely rare.

What are the signs and symptoms of yersiniosis?

Infection with *Y. enterocolitica* can cause a variety of symptoms depending on the age of the person infected. Infection with *Y. enterocolitica* occurs most often in young children. Common symptoms in children are fever, abdominal pain, and diarrhea, which is often bloody. In older children and adults, right-sided abdominal pain and fever may be the predominant symptoms, and may be confused with appendicitis. Spread of bacteria through the bloodstream to other parts of the body can occur, but it is very rare. Older children and adults sometimes develop a skin rash and joint pains. Young children and persons with weak immune systems may have a more severe illness.

Infection with *Y. pseudotuberculosis* is rare in the US. Symptoms are similar to the symptoms of *Y. enterocolitica*.

How soon after exposure do symptoms appear?

Symptoms typically develop 4 to 7 days after exposure, and may last 1 to 3 weeks or longer.

What should I do if I think I have yersiniosis?

Contact your healthcare provider.

How is yersiniosis diagnosed?

Y. enterocolitica and *Y. pseudotuberculosis* infections are generally diagnosed by detecting the organism in the stool. In people seriously ill with yersiniosis, the *Yersinia* may be found in blood and other body sites.

For how long can an infected person carry *Yersinia*?

Many people carry the bacteria for several days to several weeks after illness.

Do people infected with *Yersinia* need to be excluded from work or school?

- People with diarrhea should remain away from work or school until they have been without diarrhea for 24 hours. Young children with diarrhea should not go to daycare centers.
- Most infected people may return to work or school when the diarrhea stops, as long as they are careful to wash their hands after using the toilet and before preparing food.
- In some situations, people who are carrying *Yersinia* may be excluded from high-risk environments until follow up stool cultures are negative for *Yersinia*. The local health department will determine when it is safe for the person to return to work or other normal activities.

What is the treatment for yersiniosis?

Most people with yersiniosis recover on their own. Persons with diarrhea should drink plenty of fluids to prevent dehydration. Antibiotics are generally not recommended unless the illness is severe.

How can yersiniosis be prevented?

- Wash hands with soap and water before preparing and eating food.
- Prevent cross-contamination in the kitchen. Use separate cutting boards for meat and other foods. Carefully clean all cutting boards, counter-tops, and utensils with soap and hot water after preparing raw meat.
- Avoid eating raw or undercooked pork.
- Use special care when preparing chitterlings.
 - Follow instructions for cleaning and preparing the chitterlings.
 - Clean hands and fingernails carefully with soap and water before touching anything else in the kitchen.
 - Keep infants and children away from the kitchen while chitterlings are being prepared.
 - Wash hands before handling infants or their toys, bottles, or pacifiers.
- Consume only pasteurized milk or milk products.
- Wash hands after handling animals (pets or farm animals).
- Dispose of animal feces in a sanitary manner.

Where can I find more information about yersiniosis?

Additional information is available at:

<http://www.cdc.gov/nczved/divisions/dfbmd/diseases/yersinia/>

Information on the safe preparation of chitterlings may be found at:

http://www.fsis.usda.gov/Fact_Sheets/Yersiniosis_and_Chitterlings/index.asp